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United States Patent [19][11] **Patent Number:** **5,252,952****Frank et al.**[45] **Date of Patent:** **Oct. 12, 1993**[54] **CURSOR DEVICE WITH ZERO-POINT
RESETTING**[75] **Inventors:** **Manfred Frank, Grossshadersdorf;
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Fed. Rep. of Germany**[73] **Assignee:** **The Cherry Corporation, Waukegan,
Ill.**[21] **Appl. No.:** **744,363**[22] **Filed:** **Aug. 13, 1991**[30] **Foreign Application Priority Data**

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[51] **Int. Cl.⁵** **G09G 1/00**[52] **U.S. Cl.** **345/157; 345/168**[58] **Field of Search** **340/706, 709, 711;
200/6 A; 74/471 XY**[56] **References Cited****U.S. PATENT DOCUMENTS**

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Gilson & Lione[57] **ABSTRACT**

A cursor control device moves from a precise zero rest position to define x-y coordinates for moving a cursor on a computer screen. When an actuating force is removed, the deflected control device is precisely returned to its zero rest position by operation of springs. The device provides relative cursor position data by reference to the zero rest position. The position data is converted to electrical signals which are utilized to position the cursor on the screen.

12 Claims, 7 Drawing Sheets